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| 10/676,941 | 09/30/2003 | Petrus J. L. van Beek | SLA1425 (7146.0168) | 7868 |

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| EXAMINER |
|---|
| CEHIC, KENAN |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11/28/2011*.
2a)☐ This action is **FINAL**.  2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *23-25,27-31,33-37,39-42,44 and 45* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *23-25,27-31,33-37,39-42,44 and 45* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All  b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

## Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1.      Claims 23-25,27-31,33-37,39-42,44 and 45 rejected under 35 U.S.C. 112, first paragraph,

as failing to comply with the written description requirement.  The claim(s) contains subject

matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention.

For claim 23 and similarly 35, the examiner fails to see support in the original

specification for the following limitations as emphasized:

"said transmitter, **at a predetermined time, automatically and without regard to**

**any change in the rate of data received through said input increasing the rate of**

**transmission....over a wireless link** "

The examiner fails to see support for that the transmitter **must transmit at an increased**

**rate** at predetermined time over a wireless link. While the specification supports

increasing the rate for a plurality of packets, it appears the disclosure does not support

that such transmission with increase rate must happen at a predetermined time, where

such transmission is over a wireless link.

Further, the specification appears to lack support for the specific negative limitation that

one must transmit at a predetermined time at an increased rate over a wirless link, **while**

**not regarding change on rate of reception at an input.** Negative limitations need to be

positively recited in the original specification.

Dependent claims are rejected based on their dependence.


## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.

The factual inquiries set forth in Graham **v.** John Deere Co., 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.


2.      Claims 23-25,27, 29, 33,34 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Gvozdanovic et al (US 6,600,720) in view of Zeira et al. (US 2008/0267123), and Hayder et

al (WO 02/087276) and Fang (US 2007/0064722)

For claim 23, Gvozdanovic discloses a method of transmitting data from a transmitter (see figure 2; ATM layer; AAL2) that transmits data received from an input to said transmitter (see figure 2; User traffic inputs (data, voice, inband signal etc) to lower layers output (ATM layer; AAL2); , said method comprising (see figs. 6-8):

(a)  defining a first average rate to transmit a first plurality of packets of said data for presentation at a receiver (see col 5 lines 25-40 "SCR: Sustained cell rate..long term average rate"; figs. 6-8, SCR, all cells; col 8 lines 1-15 "sustained cell rate (average bandwidth) "; col 23 lines 10-15 "receiving end"; col 4 line 1-10 "at the transmitting entity…regenerates, at the receiving entity" )

(b) defining a second rate to transmit a second plurality of packets of said data comprising a subset of said first plurality of packets wherein said second plurality of packets is less than said first plurality of packets, wherein said second rate is greater than said first average rate (see col 5 lines 25-40 "PCR…SCR<PCR..MBS…maximum number..at PCR within the terms of the SCR..define bounds on burst durations"; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum length")'

(c) a transmitter, at a predetermined time (see figure 6 and 7; burst tolerance; col 7 line 34-36),  automatically increasing the rate of transmission to said receiver of said second plurality of packets to said second rate  (see col 5 lines 25-40

"PCR…SCR<PCR..MBS…maximum number..at PCR within the terms of the

SCR..define bounds on burst durations"; col 6 lines 30-34; figs. 6-8 PCR=4SCR, MBS;

col 7 lines 5-21 "PRCVoice…voice traffic bursts at PCR"; col 7 lines 25 through col 8

line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum length"; col 23

lines 10-15 "receiving end"; col 4 line 1-10 "at the transmitting entity…regenerates, at

the receiving entity"; traffic speed is increased automatically to PCR when transmitting a

burst of voice data from a transmitting end to receiving end);


(d) the ones of said first plurality of packets for presentation to user at said receiver that

are included in said second plurality of packets (see col 5 lines 25-40

"PCR…SCR<PCR..MBS…maximum number..at PCR within the terms of the

SCR..define bounds on burst durations"; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25

through col 8 line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum

length"; figs 6-8, burst).


For claim 24, Gvozdanovic discloses wherein said second plurality of packets are

provided to said transmitter at the maximum rate (see col 7 lines 1-15 "maximum

allocated voice bandwidth…"; col 5 lines 25-40 "PCR…maximum rate").

For claim 25, Gvozdanovic discloses said second plurality of packets are provided as a

burst of packets with at least two packets transmitted in a back-to-back fashion without

other packets between them (see col 5 lines 25-40 "PCR…SCR<PCR..MBS…maximum

number..at PCR within the terms of the SCR..define bounds on burst durations"; figs. 6-8

burst; col 7 lines 25 through col 8 line 15 " maximum length…transmit at

PCR…PCR=4SCR…maximum length").

For claim 27, Gvozdanovic discloses all packets of said second plurality of packets

contain at least one of audio data (see col 5 line 15-40 "voice traffic"; col 7 lines 25

through col 8 line 15 " voice channel").

For claim 29, Gvozdanovic discloses wherein said transmitting is by an APPLICATION

LAYER (see col 5 line 25-35 "voice application").

For claim 33, Gvozdanovic discloses wherein steps (b) and (c) are performed a plurality

of times over a time period (see figs. 6-8).

For claim 34, Gvozdanovic discloses wherein said first average rate is equal to the bit rate

of the data source (see col 5 line 15-40 "Variable bit rate…").


Gvozdanovic does not explicitly discuss the following:

For claim 23, an average rate;

said transmitter, at a predetermined time, automatically and without regard to

any change in the rate of data received through said input transmitting a burst; estimating

the bandwidth of said wireless interconnection  based on respective arrival times, at said

receiver, of only those ones that are included in a burst.


Zeira from the same or similar field of endeavor discloses the following:

For claim 23, Zeira discloses said transmitter, at a predetermined time, automatically and

without regard to any change in the rate of data received through said input (see section

0123, 0339, 0521) transmitting a burst on a wireless interconnection (see figure 1; 520)

Hayder from the same or similar field of endeavor discloses the following:

For claim 23 ,Hayder discloses estimating the bandwidth of said interconnection based on

respective arrival times (see page 5; line 25-33), at said receiver, of only those ones that

are included in a burst (see page 3 lines 1-6);.

Fang from the same or similar field of endeavor discloses the following features:

For claim 23, Fang discloses a average rate (see section 0091-92 "PCR…mean rates…")

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify / combine the features of Zeira by using the above recited features,

as taught by Gvozdanovic, Fang, and Hayder in order to provide a reactive, realtime

congestion control management method which allows more connections to be transported

while maintaining quality(see Gvozdanovic cols 1-2) ; in order to efficiently transport

synchronous data with limited jitter over a communication channel while making the

remaining available bandwidth of the channel (see Fang section 0007); in order to a

method of accurately measure a link bandwith in a real- time application, where no extra

bandwidth overhead is incurred (see Hayder page 2 line 20-25)

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to implement Gvozdanovic's transmission methodology and a sustained cell

rate and peak cell rate transmission to the system of Zeira where we are able to

implement bursty traffic limits (SCR, PCR) to the bursty traffic of Zeira. Therefore, in

the combination we would have burst transmitted at certain periods regardless of change

of input rate as taught by Zeira. It would have been obvious to a person of ordinary skill

in the art at the time of invention to combine/ add Gvozdanovic features since it is

suggested that the invention is to be applied to any packet network (see Gvozdanovic col

2 line 43-47), where Zeira is implemented via a packet network (see Zeira section 0003-

5; claim 1)

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to implement measuring bandwidth of a link (such as the wireless link between

base station and mobile of Zeira) by using Hayder 's method of marking burst and using

those to estimate bandwidth of the link to the combination of Zeira and Gvozdanovic. It

would have been obvious to a person of ordinary skill in the art to implement Hayder 's

bandwidth estimation method to the bursts as taught by the combination of Zeira, and

Gvozdanovic, where Hayder's method utilize generic bursts and packets (see Hayder

page 3 lines 1-6) for it method. It would have been obvious to a person of ordinary skill

in the art to apply the bandwidth estimation of Hayder utilizing data bursts to bursts that

are sent regardless of input change between the base station and mobile (such as taught

by Zeira ) and use those burst to estimate the bandwidth of the wireless link.

3.      Claims 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic

et al (US 6,600,720), Zeira et al. (US 2008/0267123), and Hayder et al (WO 02/087276) and

Fang (US 2007/0064722) as applied to claim 23, further in view of Makrucki (US 5,548,581)

> For claim 28, Gvozdanovic, Seo, Gross and Fang discloses the claimed invention as
>
> described above.
>
> Gvozdanovic, Seo, Gross and Fang are silent about:
>
> For claim 28, said second plurality of packets is transmitted in a duration less than 1
>
> second.
>
> Makrucki from the same or similar field of endeavor discloses the following features:
>
> For claim 28, Makrucki discloses said second plurality of packets is transmitted in a
>
> duration less than 1 second (see col 8 lines 20-40 "0.256 milliseconds...1 burst").
>
> It would have been obvious to one of the ordinary skill in the art at the time of the
>
> invention to modify / combine the features of Gvozdanovic, Seo, Gross and Fang by
>
> using the above recited features, as taught by Makrucki, in order to provide a
>
> communication system with an improved ability to make connection acceptance/rejection
>
> decisions (see Makrucki col 2)

4.      Claims 30,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gvozdanovic et al (US 6,600,720), Zeira et al. (US 2008/0267123), and Hayder et al (WO

02/087276), and  Fang (US 2007/0064722) as applied to claim 23, further in view Khirman (US

2008/0117915)

> For claim 30,31, Gvozdanovic, Zeira, Hayder and Fang discloses the claimed invention
>
> as described above.
>
> Gvozdanovic, Zeira, Hayder and Fang are silent about:
>
> For claim 30 , wherein said transmitting is by a transport layer
>
> For claim 31 and 42, wherein said transmitting is by a network layer
>
> Khirman from the same or similar field of endeavor discloses a communication network
>
> with the following features:
>
> For claim 30, Khirman discloses wherein said transmitting is by a transport layer (see
>
> section 0004 "transport layer…network layer"; see fig. 1).
>
> For claim 31,  Khirman discloses wherein said transmitting is by a network layer (see
>
> section 0004 "transport layer…network layer"; see fig. 1).
>
> It would have been obvious to one of the ordinary skill in the art at the time of the
>
> invention to modify the system of Gvozdanovic, Zeira, Hayder and Fang by using the
>
> features, as taught by Khirman, in order to provide a module where multiple higher level
>
> functions can operate on any lower level functions

5.        Claims 35-37, 40, 44, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gvozdanovic et al (US 6,600,720) in view of  Zeira et al. (US 2008/0267123), and Hayder et al

(WO 02/087276)

For claim 35, Gvozdanovic discloses A method of transmitting a contiguous sequence of

data (see figs 6-8, burst), said method comprising:

(a) defining a transmission rate to transmit a plurality of packets of said contiguous

sequence data wherein said transmission rate is greater than the average rate for

transmitting said data to a receiver (see col 5 lines 25-40

"PCR…SCR<PCR..MBS…maximum number..at PCR within the terms of the

SCR..define bounds on burst durations"; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25

through col 8 line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum

length")' ;

(b)

transmitting said plurality of packets of said data (see col 5 lines 25-40

"PCR…SCR<PCR..MBS…maximum number..at PCR within the terms of the

SCR..define bounds on burst durations"; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25

through col 8 line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum

length")'  over a

interconnection to a receiver (col 23 lines 10-15 "receiving end"; col 4 line 1-10 "at the

transmitting entity…regenerates, at the receiving entity" ), at a predetermined time (see

figure 6 and 7; burst tolerance; col 7 line 34-36),, at a rate automatically increased to said

second rate (see col 5 lines 25-40 "PCR…SCR<PCR..MBS…maximum number..at PCR

within the terms of the SCR..define bounds on burst durations"; col 6 lines 30-34; figs. 6-8 PCR=4SCR, MBS; col 7 lines 5-21 "PRCVoice…voice traffic bursts at PCR"; col 7 lines 25 through col 8 line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum length"; col 23 lines 10-15 "receiving end"; col 4 line 1-10 "at the transmitting entity…regenerates, at the receiving entity"; traffic speed is increased automatically to PCR when transmitting a burst of voice data from a transmitting end to receiving end), wherein all packets contain at least one of audio data (see col 5 line 15-40 "voice traffic"; col 7 lines 25 through col 8 line 15 " voice channel); those packets of said contiguous sequence of data included in said plurality of packets (see figs 6-8, burst)

For claim 36, Gvozdanovic discloses wherein said second plurality of packets are provided to said transmitter at the maximum rate (see col 7 lines 1-15 "maximum allocated voice bandwidth…"; col 5 lines 25-40 "PCR…maximum rate").

For claim 37, Gvozdanovic discloses said second plurality of packets are provided as a burst of packets with at least two packets transmitted in a back-to-back fashion without other packets between them (see col 5 lines 25-40 "PCR…SCR<PCR..MBS…maximum number..at PCR within the terms of the SCR..define bounds on burst durations"; figs. 6-8 burst; col 7 lines 25 through col 8 line 15 " maximum length…transmit at PCR…PCR=4SCR…maximum length").

For claim 40, Gvozdanovic discloses wherein said transmitting is by an APPLICATION LAYER (see col 5 line 25-35 "voice applicaton").

For claim 44, Gvozdanovic discloses wherein said first average rate is equal to the bit rate

of the data source (see col 5 line 15-40 "Variable bit rate…").

Gvozdanovic is silent about:

For claim 35, Transmitting a burst, at a predetermined time, automatically and without

regard to any change in the rate of data received through said input;

estimating the bandwidth of said wireless interconnection  based on respective arrival

times, at said receiver, of only those ones that are included in a burst.

For claim 45,  performing said transmitting and said estimating a plurality of times over a

time period .

Zeira from the same or similar field of endeavor discloses the following:

For claim 23, Zeira  discloses transmitting a burst, at a predetermined time, automatically

and without regard to any change in the rate of data received through said input (see

section 0123, 0339, 0521) on a wireless interconnection (see figure 1; 520)

Hayder from the same or similar field of endeavor discloses the following:

For claim 23 ,Hayder discloses estimating the bandwidth of said interconnection based on

respective arrival times (see page 5; line 25-33), at said receiver, of only those ones that

are included in a burst (see page 3 lines 1-6);.

For claim 45, Hayder discloses performing said transmitting and said estimating a

plurality of times over a time period (see page 4 line 23-24).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify / combine the features of Zeira  by using the above recited features,

as taught by Gvozdanovic,  and Hayder in order to provide a reactive, realtime congestion

control management method which allows more connections to be transported while

maintaining quality(see Gvozdanovic  cols 1-2) ; in order to a method of accurately

measure a link bandwith in a real- time application, where no extra bandwidth overhead

is incurred (see Hayder page 2 line 20-25)

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to implement Gvozdanovic's  transmission methodology and a sustained cell

rate and peak cell rate transmission to the system of Zeira where we are able to

implement bursty traffic limits (SCR, PCR) to the bursty traffic of Zeira. Therefore, in

the combination we would have burst transmitted at certain periods regardless of change

of input rate as taught by Zeira. It would have been obvious to a person of ordinary skill

in the art at the time of invention to combine/ add Gvozdanovic features since it is

suggested that the invention is to be applied to any packet network (see Gvozdanovic col

2 line 43-47), where Zeira is implemented via a packet network (see Zeira section 0003-

5; claim 1)

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to implement measuring bandwidth of a link (such as the wireless link between

base station and mobile of Zeira) by using Hayder 's method of marking burst and using

those to estimate bandwidth of the link to the combination of Zeira and Gvozdanovic. It

would have been obvious to a person of ordinary skill in the art to implement Hayder 's

bandwidth estimation method to the bursts as taught by the combination of Zeira, and

Gvozdanovic, where Hayder's method utilize generic bursts and packets (see Hayder

page 3 lines 1-6) for it method. It would have been obvious to a person of ordinary skill

in the art to apply the bandwidth estimation of Hayder utilizing data bursts to bursts that

are sent regardless of input change between the base station and mobile (such as taught

by Zeira ) and use those burst to estimate the bandwidth of the wireless link.

6.      Claims 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic

et al (US 6,600,720), Zeira et al. (US 2008/0267123), and Hayder et al (WO 02/087276) as

applied to claim 35, further in view of Makrucki (US 5,548,581)

For claim 39, Gvozdanovic, Zeira, and Hayder discloses the claimed invention as described above.

Gvozdanovic, Zeira, and Hayder are silent about:

For claim 39, said second plurality of packets is transmitted in a duration less than 1 second.

Makrucki from the same or similar field of endeavor discloses the following features:

For claim 39, Makrucki discloses said second plurality of packets is transmitted in a duration less than 1 second (see col 8 lines 20-40 "0.256 milliseconds...1 burst").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify / combine the features of Gvozdanovic, Zeira, and Hayder by using the above recited features, as taught by Makrucki, in order to provide a communication system with an improved ability to make connection acceptance/rejection decisions (see Makrucki col 2)


7.      Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720), Zeira et al. (US 2008/0267123), and Hayder et al (WO 02/087276) as applied to claim 35, further in view Khirman (US 2008/0117915)

For claim 41,42, Gvozdanovic, Zeira, and Hayder discloses the claimed invention as described above.

Gvozdanovic, Zeira, and Hayder are silent about:

For claim 41, wherein said transmitting is by a transport layer

For claim 42, wherein said transmitting is by a network layer

Khirman from the same or similar field of endeavor discloses a communication network

with the following features:

For claim 41, Khirman discloses wherein said transmitting is by a transport layer (see

section 0004 "transport layer...network layer"; see fig. 1).

For claim 42, Khirman discloses wherein said transmitting is by a network layer (see

section 0004 "transport layer...network layer"; see fig. 1).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify the system of Gvozdanovic, Zeira, and Hayder by using the features,

as taught by Khirman, in order to provide a module where multiple higher level functions

can operate on any lower level functions

## Conclusion

8.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120.

The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, KWANG BIN YAO can be reached on (571) 272-3182.  The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system.  Status information for published applications

may be obtained from either Private PAIR or Public PAIR.  Status information for unpublished

applications is available through Private PAIR only.  For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


/Kenan  Cehic/

Examiner, Art Unit 2473


/KWANG B YAO/

Supervisory Patent Examiner, Art Unit 2473